Stay Safe from Carbon Monoxide

According to Health and Safety Executive statistics, approximately fifteen people die every year from Carbon Monoxide poisoning caused by gas appliances and flues that have not been properly installed, maintained or that are poorly ventilated.

Carbon Monoxide is a colourless, odourless, tasteless, poisonous gas that is produced by incomplete burning of carbon-based fuels, such as gas, oil, wood and coal.

Carbon-based fuels are safe to use; it is only when the fuel does not burn properly that excess Carbon Monoxide is produced.

Levels of Carbon Monoxide that do not kill can cause serious health problems if breathed in over a long period. In extreme cases, paralysis and brain damage can be caused by prolonged exposure to Carbon Monoxide.

Household appliances that may use carbon-based fuels include the following:

- Boilers
- Gas Fires
- Central Heating
- Water Heaters
- Cookers
- Open Fires

Symptoms of Carbon Monoxide poisoning

Some of the early symptoms of Carbon Monoxide poisoning are similar to those of many common ailments such as food poisoning, viral infections, Flu or just simple tiredness and include the following:

- Headaches
- Dizziness
- Breathlessness
- Chest or stomach pains
- Loss of consciousness
- Nausea
- Tiredness

Further information regarding symptoms can be found on the NHS Choices web site .

If you or your family experience any of the above symptoms and believe you may have been exposed to Carbon Monoxide, you should seek urgent medical advice.

Common Causes of Carbon Monoxide poisoning

Incorrectly installed or maintained appliances are the main cause of accidental exposure to Carbon Monoxide.

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Damaged or poorly serviced appliances often produce higher levels of Carbon Monoxide and become dangerous.

Blocked flues and chimneys can prevent Carbon Monoxide gas from escaping and therefore allowing it to build up to dangerous levels.

Burning fuel in an enclosed or poorly ventilated space, where there are no air vents, windows or doors left open or ajar, increases the risk of Carbon Monoxide poisoning; for example, a car engine that is left running inside a garage, or a faulty heating boiler in a poorly ventilated kitchen.

Fumes from cleaning fluids and paint removers that contain methylene chloride (dichloromethane) can also cause Carbon Monoxide poisoning: When it is inhaled (breathed in) methylene chloride is converted into Carbon Monoxide.

There are some visible signs which indicate that incomplete combustion is taking place and may result in the production of Carbon Monoxide. They include the following:

- Yellow or orange, rather than blue flames (except for fuel effect fires or flue-less appliances which display this colour flame)
- Soot or yellow/brown staining on or around the appliance
- Pilot lights that frequently blow out
- Increased condensation inside windows.

Taking sensible precautions can dramatically reduce the risk

- Make sure that your household appliances are safe and well maintained
- Boilers, cookers, heating systems and appliances should be installed and regularly serviced by a reputable, registered engineer
- Anyone carrying out work on gas installations and appliances in your home must be on the Gas Safe Register. For solid fuel appliances they must belong to the Heating Equipment Testing and Approval Scheme (HETAS) and for oil appliances the Oil Firing Technical Association (OFTEC). Do not attempt to install or service appliances yourself
- Never use ovens or gas ranges to heat your home
- Make sure that rooms are well-ventilated, and do not block air vents. If your home is double-glazed or draught-proofed, make sure there is still enough air circulating for any heaters that are in the room
- Make sure that all chimneys and flues are swept from top to bottom regularly and that they are kept clear (at least once a year) by a qualified sweep who is a member of the National Association of Chimney Sweeps (NACS), the Guild of Master Sweeps (GMS) or the Association of Professional and Independent Chimney Sweeps (APICS)
- Do not use gas-powered equipment and tools inside your home if you can avoid it. Only use them in a well-ventilated area and put the engine unit and exhaust outside
- Always use a safety mask when using chemicals that contain methylene chloride
- Do not leave petrol-fuelled lawnmowers or cars running in the garage
- Do not burn charcoal in an enclosed space, such as on an indoor barbecue
- Do not sleep in a room that has an unflued gas fire or a paraffin heater
- Fit an extractor fan in your kitchen (if it does not already have one).

Carbon Monoxide alarms

The most reliable way of checking Carbon Monoxide levels in your house is to install an audible Carbon Monoxide alarm. They are available from DIY and hardware stores (Suffolk Fire and Rescue Service do not issue Carbon Monoxide alarms).

Carbon Monoxide alarms should give out a high-pitched noise when levels of Carbon Monoxide are high.

Remember, these alarms may warn you of the presence of Carbon Monoxide but they are not a replacement for regularly servicing household appliances.

When buying a Carbon Monoxide alarm, make sure that it is approved to the latest British or European Standard (BS Kitemark or EN50291).

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